

REMARKS

Claims 1-9 are pending in this application of which claims 1, 3 and 5 are independent. Following response to the restriction requirement, claims 3-6 and 8-9 have been withdrawn, and claims 1, 2, and 7 examined.

The Examiner maintains the rejection of claims 1, 2, and 7 under 35 U.S.C. § 103(a) as being unpatentable over Shiga [et al.], (U.S. Patent No. 6,476,418) in view of Tsujimura [et al.] (U.S. Patent Application No. 2001/0043292 A1). The rejection is respectfully traversed.

Submitted concurrently herewith is an English translation and a certificate of translation for Japanese Patent Application No. 2000-193453, which has been appropriately claimed for priority. This application has a filing date of June 27, 2000, and predates Tsujimura having a filing date of February 2, 2001. It is submitted that the certified translation meets all requirements to perfect priority; thereby Tsujimura is not prior art.

Despite the fact that Tsujimura has been effectively removed as prior art, it is nonetheless submitted that Tsujimura is not combinable with Shiga, at least based on the motivation provided. To put it another way, Shiga is not modifiable in the suggested manner.

The object of Shiga is to reduce a light OFF current while preventing a light ON current from being reduced. (Shiga, col. 1, lines 53-55). As regards reducing light OFF current, Shiga describes conventional technologies, such as that described in Japanese Patent Laid-Open Pub. No. 7-147411, which alleges to reduce the area of a low concentration diffusion layer for reducing OFF current. However, by reducing the diffusion layer area, the effective width of the channel of the TFT, and therefore the ON current, are reduced. (Shiga, col. 1:29-46). On the other hand, Shiga describes that disclosed by Japanese Patent Laid-Open Pub. No. 7-94753, which alleges to provide a gate electrode with a greater area than a semiconductor layer so as to

screen the entire semiconductor layer for reducing OFF current. However, this reduces the ON current as well because the contact portions between the source electrode and the drain electrode and the semiconductor layer are screened. (Shiga, col. 1: 29-46).

In the prior response, it was argued that, in Shiga, the semiconductor layer 104 has a width that is *greater* than the width of a crossing portion of the semiconductor layer that crosses an edge of the gate electrode 102 (see Fig. 1(a)), or the semiconductor layer 104 *terminates* at a crossing portion of an edge of the gate electrode 102 (see Figs. 4(a) and 6(a)). In response thereof, the Examiner has argued that the photocarrier region 109 (described in connection with Figs. 4-6) is part of the semiconductor layer 104, and therefore crosses an edge of a gate electrode. Following this characterization, the semiconductor layer (including photocarrier region 109) has a width *greater* than the width of a crossing portion of the semiconductor layer that crosses an edge of the gate electrode 102. Shiga does not read on claim 1.

As to motivation, the Examiner reiterates that "it would have been obvious ... to employ the Shiga et al. drain electrode having a drain line and the width of the drain line that cross the edge line of the gate electrode is smaller than that of the drain electrode as shown by Tsujimura et al. in order to minimizing a leakage current in a floating island region formed in a TFT." Modifying the drain line of Shiga to be *smaller* than that of the drain electrode would cause the same problem to occur as in conventional art described by Shiga. The effective width of the channel of the TFT would be reduced, and therefore the ON current would also be reduced. It is explicitly stated that Shiga intends to reduce light OFF current while preventing a light ON current from being reduced. In other words, Shiga expressly teaches away from reducing the effective width of a channel, because this will reduce ON current. *See In re Grasselli*, 713 F.2d 731, 743, 218 USPQ 769, 779 (Fed. Cir. 1983) (It is improper to combine references where the

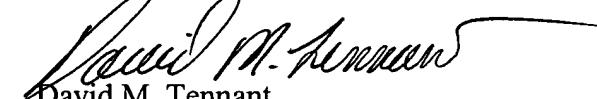
references teach away from their combination.); (See MPEP §2145). In other words, the proposed modification, or any modification that may be proposed, renders Shiga unsatisfactory for its intended purpose of preventing a light ON current from being reduced.

In summary, modification of Shiga would render it inoperable for its intended purpose, and Tsujimura has been removed as prior art. Accordingly, the obviousness rejection is no longer valid. Withdrawal of the same is respectfully solicited. Expedient allowance is respectfully solicited.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

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